

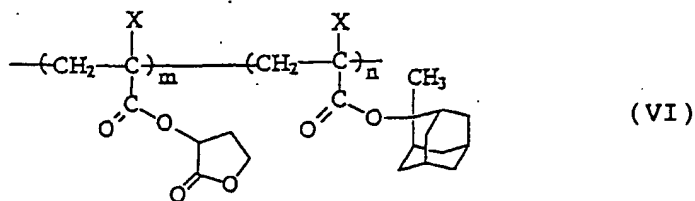
**AMENDMENTS TO THE SPECIFICATION:**

Please amend the paragraph beginning at page 8, line 17, as follows:

The preferred resist composition of the present invention is supplied in a form of solution dissolved into a solvent, which is selected from a group of ethyl lactate, methylamylketone, methyl-3-methoxypropionate, ethyl-3-ethoxypropionate, propyleneglycolmethylether acetate and a mixture thereof. The resist solution may further contain butylacetate,  $[[\tau]]$   $\gamma$  (gamma)-butyrolactone, propyleneglycol methylether and a mixture thereof as additional solvent.

Please amend the paragraph beginning at page 15, line 2, as follows:

In implementing the present invention, it is advantageous to use a  $[[\tau]]$   $\gamma$  (gamma)-butyrolactone-2-yl methacrylate/2-methyl-2-adamantyl methacrylate copolymer represented by the formula (VI)



for the acid-sensitive copolymer, wherein X represent a methyl group or a hydrogen atom and may be the same or may be different form each other.

Please amend the paragraph beginning at page 15, line 29, as follows:

In the foregoing copolymer, it is preferable to set the proportion of the  $[[\tau]]$   $\gamma$  - butyrolactone-2-yl methacrylate forming the first monomer unit of the copolymer to 20 - 70 mol%, more preferably to 30 - 60 mol%. When the proportion of the foregoing monomer unit is reduced below about 20 mol%, there appears a tendency that the resist pattern peels off. When, on the other hand, the proportion of the monomer unit exceeds about 80 mol%, the resin becomes soluble to a basic aqueous solution. Most preferably, the monomer unit is contained with a proportion of 40 - 60 mol%.

Please amend the paragraph beginning at page 19, line 33, as follows:

The resist solution thus formed may further contain an additional, auxiliary solvent. Such an auxiliary solvent is not necessary when the resist film is formed uniformly as a result of the spin coating process. On the other hand, when the uniformity of the coated resist film is poor, the quality of the resist film can be improved by adding such an auxiliary solvent to the foregoing primary solvent generally within the proportion of 1 - 30 wt%, more preferably 10 - 20 wt%. For the auxiliary solvent, a solvent selected from butyl acetate,  $[[\tau]]$   $\gamma$  (gamma)-butyrolactone, propyleneglycol methylether, and the like may be used.

Please amend the paragraph beginning at page 22, line 33, as follows:

[FIRST EMBODIMENT]

SYNTHESIS OF [[ $\tau$ ]]  $\gamma$ -BUTYLOLACTONE-2-YL METHACRYLATE

A three-neck flask of 200 ml size is dried thoroughly and filled with N<sub>2</sub>, after connecting thereto a dropping funnel, a calcium chloride tube and a N<sub>2</sub> supply tube at respective necks. Next, 50 ml of dry methylene chloride, 5.0g (48.9 mmol) of 2-hydroxy- [[ $\tau$ ]]  $\gamma$  (gamma)-butyrolactone, and 5.45g (53.9 mmol) of dry triethylamine are introduced into the three-neck flask and stirred in an N<sub>2</sub> atmosphere at 0°C by using a teflon-coated stirrer bar.

Please amend the paragraph beginning at page 23, line 33, as follows:

[SECOND EMBODIMENT]

SYNTHESIS OF A COPOLYMER OF [[ $\tau$ ]]  $\gamma$ -BUTYLOLACTONE-2-YL  
METHACRYLATE AND 2-METHYL-2-ADAMANTYL METHACRYLATE

A flask of 100 ml size is used to hold 3g (17.6 mmol) of [[ $\tau$ ]]  $\gamma$  (gamma)-butyrolactone-2-yl methacrylate, 3.51g (14.4 mmol) of 2-methyl-2-adamantyl methacrylate, 788mg (4.8mmol) of AIBM (15 mol%) and 10.7 ml of dioxane, together with a magnetic stirrer bar, and the mixture in the flask is stirred by using the magnetic stirrer bar in a dry N<sub>2</sub> environment at a temperature of 70°C for 8 hours. A resultant viscous fluid is added dropwise in 800 ml of methanol, to form a precipitate.

Please amend the paragraph beginning at page 24, line 26, as follows:

[THIRD EMBODIMENT]

RESIST PATTERN FORMATION

The copolymer synthesized in the second embodiment is dissolved into PGMEA (propyleneglycol methylether acetate) to form a 15 wt% solution. The solution is further added with 8 wt%  $[\tau]$   $\gamma$  (gamma)-butyrolactone as the auxiliary solvent. The solution thus obtained is further added with 2 wt% of triphenylsulfonium trifluorosulfonate for complete dissolution.

Please amend the paragraph beginning at page 26, line 26, as follows:

[SIXTH EMBODIMENT]

SYNTHESIS OF A COPOLYMER OF  $[\tau]$   $\gamma$  (gamma)-BUTYLOLACTONE-2-YL  
METHACRYLATE AND ISOBORNYL METHACRYLATE

A flask of 100 ml size is used to hold 5.0g (29.4 mmol) of  $\tau[\tau]$   $\gamma$  -butyrolactone-2-yl methacrylate, 6.54g (29.4 mmol) of isobornyl methacrylate, 19.6 ml of dioxane and 1.44g (8.8 mmol) of azobisisobutyronitrile (AIBN), together with a teflon-cated stirrer bar, and the mixture in the flask is stirred by using the stirrer bar in an  $N_2$  environment at a temperature of 70°C for 8 hours. A resultant fluid is diluted by THF and added dropwise into 1 l of methanol containing a small amount of hydroquinone, to form a precipitate.

Please amend the paragraph beginning at page 27, line 24, as follows:

[SEVENTH EMBODIMENT]

FORMATION OF RESIST PATTERN

The copolymer synthesized in the previous sixth embodiment is dissolved to form a 145 wt% PGMEA solution. Further, a resist is formed by adding 2 wt% of triphenylsulfonium trifluoromethanesulfonate with respect to the resin, to the foregoing PGMEA solution. The solution further contains 6 wt% of  $[\tau]$   $\gamma$  (gamma)-butyrolactone as an auxiliary solvent.

Please amend the paragraph beginning at page 30, line 10, as follows:

In the resist composition of the present invention, the lactone part is formed from a low cost source of 2-hydroxy-  $[\tau]$   $\gamma$  (gamma)-butyrolactone. Further, the resist composition can be formed with a higher synthetic yield than in the case in which mevalonic lactone is used. As demonstrated in the experiments described before, it should be noted that the monomers and copolymer are synthesized in the present invention with a yield exceeding 80%.